

REMARKS

Applicant respectfully requests reconsideration and allowance of all pending claims in view of the above-amendments and the following remarks.

I. CLAIM AMENDMENTS

The Applicant proposes a new set of claims (*see Amended claim 1 enclosed*) in which independent claim 1 has been amended in order to clarify the interface between the set of specific API functions and the MQIsdp protocol.

Independent claims 20-22 are amended in a similar manner.

More precisely, claim 1 has been amended in order to show the following means (comprised in the radiocommunication means), whose support in description is detailed between brackets:

- exchanging means enabling :
 - * to exchange data with the remote terminal according to a set of specific API functions;
 - * to exchange data with the broker according to the MQIsdp protocol;

(*see p.5, ll. 9-11 : “said radiocommunication means manage the signalling of a data exchange and the transfer of said data” ;*
see p. 10, ll. 10-16: “a set of specific API functions enabling . . . to manage data exchanges between a remote terminal and a broker, via radiocommunication means . . . without the application knowing the MQIsdp protocol implemented by the broker” ; see p.14, ll. 25-28: “It ensures the transformation to the MQIsdp format, and manages the transmission and reception of data 15 according to this protocol”; and p.15, ll. 8-10 : “The data goes through the module 14”).
 - interfacing means for interfacing between said set of specific API functions and said MQIsdp protocol, so as to enable an interconnection between said at least one broker and said at least one remote apparatus via said radiocommunication means without said at least one remote apparatus knowing said MQIsdp protocol
- (*see p.4, ll. 12-22 : “Thus, it is possible to entirely internally manage, in the*

radiocommunication means, and in particular in a module, the application for controlling one or more terminals with a broker functioning according to the MQIsdp protocol, without the terminal knowing this protocol . . . This is the module that manages these operations, by means of the functions of the invention, and provides the interface with the MQIsdp protocol.”; see p.14, ll. 25-28: “It ensures the transformation to the MQIsdp format, and manages the transmission and reception of data 15 according to this protocol, in a transparent manner for . . . the terminal”).

This shows more clearly the interconnection between the broker, which works according to the MQIsdp protocol, and the remote terminal is carried out without the remote terminal knowing this protocol.

II. CLAIM REJECTIONS – 35 USC §102

Claims 1-3, 8, and 11-22 are rejected under 35 U.S.C. 102(b) as being unpatentable over ANDY XP – 002283767 March 2002.

A. **ANDY (IBM document)**

ANDY concerns a general protocol for MQ Integrator SCADA device (usually named MQIsdp) developed by IBM Software Group. It deals with notions of “publish” and “subscribe”, and illustrates some examples of application.

B. **ANDY Does Not Disclose Applicant’s Claim 1**

Contrary to ANDY, the invention recited in claim 1 relates to a particular implementation of a set of three physical entities, for example:

- **a remote terminal** (associated to one or several given applications);
- **a broker** carrying out the MQIsdp protocol;
- **radiocommunication means** (those radiocommunication means are for instance integrated in a radiocommunication module or a radiocommunication device

which is independent from the remote terminal to which they are associated) for ensuring the interconnection between the remote terminal and the broker.

In one illustrative example, the radiocommunication means manage, a set of specific API functions (comprising simple functions and reduced in number) that enables, under the control of an internal application embedded in the radiocommunication means, a remote terminal to dialogue with the radiocommunication means and to require the radiocommunication means to execute certain predetermined actions with the broker, so that neither the remote terminal nor the associated external application needs to know the MQIsdp protocol carried out by the broker.

To that end, for example, the radiocommunication means recited in claim 1 comprises:

- exchanging means enabling :
 - * to exchange data with the remote terminal according to a set of specific API functions;
 - * to exchange data with the broker according to the MQIsdp protocol;
- interfacing means for making an interface between the set of specific API functions and the MQIsdp protocol carrying out by the broker.

In this way, on broker side, the information that the broker sends or receives is in the MQIsdp format and, on remote terminal side, it is not necessary to know this protocol since the radiocommunication means (thanks to the interface means) ensures the interface between the API functions and the MQIsdp protocol.

Therefore, although ANDY discloses (using the terms of the amended claim 1) a system for remote controlling equipments (*« a system that manages the flow of information from remote devices to any enterprise applications that need the data », p.3, l.1-3, « telemetry integration applications », p.9, l.8*) enabling interconnection between at least one broker (*« broker »*) and at least one remote equipment (*« client »*), said at least one broker carrying out the MQIsdp protocol (*« this allows remote devices to connect to the broker using the MQIsdp protocol », p.9, l.2-3*), said system associating, with at least one of the said remote equipment, radiocommunication

means (« *the devices communicate with the Arcom Director unit using 20-mile line-of-sight, spread-spectrum wireless links from Data-Linc Goup* », p.12, l.3-4, « *communicating through Very Small Aperture Terminal (VSAT) satellite links* », p.13, l.3), there is nothing in ANDY that discloses or suggests the integration of **radiocommunication means**, between the **remote terminal** and the **broker**, that assure, thanks to the implementation of interface means for making an interface between the specific API functions and the MQIsdp protocol, an interconnection between the remote terminal and the broker so as to carry out data exchanges between those two entities in a manner transparent for the remote terminal.

Thanks to those radiocommunication means and the implementation of a set of specific API functions, the remote terminal, which is frequently limited in terms of resources and power (usually called “equipment of intelligence limited”), is not constrained any more to integrate specific means (for instance a software architecture, memories, dedicated applications, etc...) to the MQIsdp protocol, the corresponding functions being handled by the radiocommunication means according to the present invention, for example.

C. **Claim 1 is Not Obvious in View of ANDY**

It shall be noted that, from the disclosure of ANDY, it is not obvious for the person skilled in the art, particularly when a very simple control system is currently being developed (and adapted to remote equipment of “limited intelligence”), to carry out such a implementation, which assures data exchanges between the remote terminal(s) and a broker, in the manner transparent for the applications carried by these equipments.

In addition, ANDY does not address the problem of how to interconnect a broker and a remote equipment, carried a client application, without neither the terminal nor the client application comprising specific means to the management of the MQIsdp protocol using by the broker.

A fortiori, there is nothing in ANDY that discloses or suggests any of the following features (using the terms of the amended claim 1):

- exchanging means for:

* exchanging data between said radiocommunication means and said at least one

remote apparatus according to a set of specific API functions;

- * exchanging data between said radiocommunication means and said at least one broker according to said MQIsdp protocol;

- interfacing means for making interface between said set of specific API functions and said MQIsdp protocol, so as to enable an interconnection between said at least one broker and said at least one remote apparatus via said radiocommunication means without said at least one remote apparatus knowing said MQIsdp protocol.

As a consequence and contrary to the Examiner's opinion, ANDY does not disclose nor suggest the features of claim 1 as amended.

II. CLAIM REJECTIONS – 35 USC §103

Claims 4-7, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over ANDY XP – 002283767 March 2002, and in view of Petite U.S. Patent No. 7,103,511 B2, Sep. 5, 2006.

A. **Petite**

The PETITE document deals with wireless communications networks for remote controlling and monitoring wireless devices. More particularly, this document concerns an automatic control system for controlling remote equipment implemented via a host computer which is connected to a wide area network 120 (WAN) and comprising a plurality of wireless transceiver devices 125. Each transceiver device 125 has a unique identifier and means of:

- receiving a sensor data signal from one of remote devices;
- transmitting an original data message using a predefined wireless communication protocol comprising the corresponding unique identifier of device 125 and sensor data signal.

One of the plurality of transceiver devices 125 is in charge of sending the whole original data messages to an site controller 150, connected to the WAN 120, which is configured to

manage communications between wireless communications networks (remote equipments) and the host computer connected to the WAN 120.

Even though PETITE treats of a system for monitoring and/or controlling a plurality of remote devices, there is nothing in PETITE that discloses or suggests any of the following features of claim 1, namely:

- exchanging means for:

- * exchanging data between said radiocommunication means and said at least one remote apparatus according to a set of specific API functions;
- * exchanging data between said radiocommunication means and said at least one broker according to said MQIsdp protocol;

- interfacing means for making interface between said set of specific API functions and said MQIsdp protocol, so as to enable an interconnection between said at least one broker and said at least one remote apparatus via said radiocommunication means without said at least one remote apparatus knowing said MQIsdp protocol

As a consequence, PETITE does not disclose the features of amended claim 1.

Neither ANDY nor PETITE is relevant towards the claim 1 as newly claimed in the light of the analysis described above.

B. Combination of ANDY and PETITE

The combination of PETITE and ANDY is not relevant towards amended claim 1, with neither ANDY nor PETITE providing the following features of the present claims:

- exchanging means for:

- * exchanging data between said radiocommunication means and said at least one remote apparatus according to a set of specific API functions;
- * exchanging data between said radiocommunication means and said at least one broker according to said MQIsdp protocol;

- interfacing means for making interface between said set of specific API functions and said MQIsdp protocol, so as to enable an interconnection between said at least one broker and said at least one remote apparatus via said radiocommunication means without said at least one remote apparatus knowing said MQIsdp protocol

As a consequence, the present claims are new and non-obvious in view of the combination of PETITE and ANDY.

Applicant therefore respectfully requests that the rejections of the present claims based on ANDY and/or PETITE be withdrawn.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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